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ABSTRACT

The role of the teacher is viewed as that of a decision maker and problem solver. It is pointed out that in daily work teachers must deal not only with planning lessons, selecting educational materials, initiating activities suitable for students of different abilities and motivating students, but also must deal with discipline, parent-school relations, and meeting emergencies. Suggestions are made for improving preservice teacher education, primarily by strengthening competency based education and providing considerably more student teaching experience. (JD)

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## TEACHING AS PROBLEM SOLVING

Through the years, teaching has been viewed in many ways. At the outset of public education in this country, the teacher was a stern task-master who taught to the tune of the hick'ry stick. Teaching was perceived as imparting knowledge to students and maintaining order, in addition to many other more practical aspects of life in the classroom such as keeping a fire in the stove, preparing lunch for pupils and sweeping the schoolroom floor.

Obviously, the role of the teacher has changed considerably since the days of the little red schoolhouse. However, many persons, including teacher education students, may still perceive teaching as primarily a task of conveying knowledge to pupils and maintaining "control" in the classroom. Unfortunately, such perceptions frequently are the result of the individual's own experiences in schools. It has been the experience of the writer that often when young children play the role of the teacher it's with a scowl on the face and a shaking of the finger in a "you'd better be good or else" fashion. It is amusing to watch, but nevertheless a sad commentary on our profession.

Let's look at teaching in this day and time. Books in education abound with descriptions of teaching. Some define the teaching act as preparing the learning environment; others as managing the instructional process. This writer has no quarrel

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with these definitions or descriptions of teaching. All seemingly have merit and shed some light on the very complex set of behaviors which we label "teaching". Instead, she would like to propose yet another view of teaching--that of problem solving.

Regardless of the level taught, from nursery school through graduate school, the teaching role places the individual in the position of solving countless problems of a varied nature. The discussion which follows is not exhaustive but merely an attempt to illustrate some of the innumerable problems which teachers are called upon to solve or resolve in the course of their duties. For example, there are problems which must be solved with regard to selection of materials for units and lessons. This is a difficult task because the teacher must match individual pupil needs and interests with available materials in order to meet stated instructional objectives--a weighty task, indeed. Selection of appropriate activities to accomplish stated purposes requires of the teacher similar problem solving processes. Motivation of pupils, at times, demands much of the teacher in terms of divergent thinking. Selection of student reinforcers to encourage behavioral changes is another aspect of the teaching/learning process with which the teacher must wrestle. Dealing with the unexpected, such as when a pupil has an accident in the classroom or on the playground or becomes ill, demands fast thinking of the teacher in terms of meeting the emergency and managing the other pupils. Capitalizing

upon the "teachable moment" also calls for thinking and organizing "on one's feet" and the ability to "shift gears" quickly. Countless times each day the teacher must solve a myriad of such problems which relate to the instructional process, classroom management, parent-school relations, dealing with colleagues, ad infinitum.

In the past, Colleges of Education basically have been concerned with providing pre-service students with an input of theory which was to enable them to make wise choices in their professional lives. It would be unreasonable to expect an individual to function adequately as a teacher without a theoretical background of some kind. Unfortunately, the application of theory to practice was left largely to chance. Many students had little opportunity for involvement in classrooms prior to the student teaching experience. In addition, many student teachers were not prepared to solve teaching problems. At times, teachers have been reluctant to turn over the responsibility for professional decision-making to the student teacher who thus had little opportunity to function independently. The writer has reason to believe that this may continue to be a problem. Many pre-service students simply do not have sufficient opportunities to apply what they have learned in their course work to the solving of teaching problems.

The current national trend toward Performance Based Teacher Education (PBTE) is a large step in the right direction. Apparently there is a wide variation in the implementation of PBTE programs in colleges and universities across the country. Yet most programs

are similar in that students are required to develop a repertoire of skills and behaviors which are characteristic of an adequate teacher. Problems are incurred, however, when attempts are made to identify the myriad of competencies which make up what is called "teaching". Indeed, no one has ever defined "good teaching". Perhaps this is part of the larger problem of perceiving teaching as an art as well as a science. It is much easier to catalog behaviors which relate to the science of teaching than to pinpoint behaviors which have to do with the art of teaching--those behaviors which separate the adequate teacher from the "master".

Another problem in the implementation of PBTE relates to the delicate balance between theory and practice and the need for providing sufficient opportunities for pre-service students to apply knowledge gained about teaching to on-the-job problems. This will remove such knowledge from the realm of the theoretical and make it meaningful and relevant for education students.

Following are some suggestions which have been developed from the writer's personal experience in PBTE. These considerations may help insure that students have sufficient experiences in professional decision-making before they are certified as teachers.

1. Provide sufficient exposure of pre-service students to classroom teaching experiences in public schools. Such experiences should come as early in the student's program as possible. Observation should be minimal, carefully structured, and required only when and

if such observation is followed up by seminars in which students have opportunities to react to what they have seen and to compare and contrast teaching styles.

2. Offer opportunities for pre-student teaching involvement in classrooms. Public schools may be reluctant to accept large numbers of visitors in their classrooms. This is understandable. On the other hand, teachers seem to welcome students who appear on a regular schedule and who participate in classroom activities, particularly those of a routine nature. There are many non-instructional tasks that Education students can perform which involve a minimum of professional problem solving but a maximum of exposure to the workings of a school, classroom management, roles of the teacher, etc. In addition, these students may be able to function as instructional aides, working with small groups or individual pupils in a semi-instructional capacity under the direction of the teacher.

3. Add to the competencies related to subject matter, general competencies which are germane to the role of teaching such as questioning strategies, motivational techniques, and decision making strategies. Provide opportunities for pre-service students to build competencies using simulation techniques, micro-teaching, and video tapes as students work with small groups of pupils in a regular classroom setting, before the onset of student teaching.

4. Provide opportunities for pre-service and in-service teachers to work together in simulated problem solving situations using role playing, video tapes and other mediating devices.

Pre-service and in-service teachers can form a symbiotic relationship. The pre-service teacher may add an element of enthusiasm and a dash of new ideas. The in-service teacher can add the experience and know-how to give proper perspective to the situation.

5. Plan student teaching experiences so that pre-service students will have opportunities to become professional problem solvers and decision makers. This can occur only if the student teacher has had sufficient experiences in classrooms before student teaching and if the supervising teacher encourages the student teacher to act independently and rely on his/her own judgment.

Too frequently the writer has heard this lament from student teachers, "It's almost the end of my student teaching and finally I'm beginning to feel like a real teacher. I wish I were just beginning my student teaching now!" Usually what the student teacher means by feeling like a "real" teacher is that he/she can comfortably assume many of the responsibilities which teaching involves and is growing in confidence in his/her own ability to make professional decisions.

The suggestions set forth above are illustrative and not meant to be all-inclusive. Teacher education students have differing needs; institutions vary in philosophy; local situations vary widely. Yet viewing teaching as problem solving and providing pre-service and in-service teachers with many opportunities to build problem solving and decision making skills in a variety of settings for a myriad of purposes may offer more than merely food for thought. Indeed, this

perspective may enable our profession to make important steps which will bring us closer to the realization of a dream that all who are involved in teacher education share--that of developing teachers who can meet the rigorous demands of teaching in a dynamic society, a dynamic world, regardless of the direction which these demands take in the days and years to come.